

U.S. Patent Application No. 10/053,777  
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### **REMARKS**

Entry of the foregoing proposed amendment and the following remarks are respectfully requested. By this proposed amendment, claims 2, 4, 5, 6, 8 and 11 remain pending, claims 2, 4, 5, 8 and 11 having been amended and claims 1, 7, 12, 13 and 15-21 having been newly canceled without prejudice or disclaimer.

#### **Rejection of Claims 1, 7, 12 and 17**

On page 2 of the outstanding Final Office Action, the Examiner rejected claims 1, 7, 12 and 17 under 35 U.S.C. 102(b) as allegedly being anticipated by UK Patent Application GB 2183880 A to Montgomery in view of U.S. Patent 5,839,109 to Iwamida. Because the Examiner used two references to reject claims 1, 7, 12 and 1, Applicants are assuming that the Examiner meant to reject the claims under 35 U.S.C. 103(a) as allegedly being obvious in view of Montgomery and further in view of Iwamida. Applicants propose canceling claims 1, 7, 12 and 17 without prejudice or disclaimer, thereby making the rejection of the claims moot.

#### **Rejection of Claims 5, 6 and 11**

On page 15 of the Final Office Action, the Examiner rejected claims 5, 6 and 11 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Iwamida and further in view of U.S. Patent No. 6075,842 to Engelke et al. ("Engelke"). Applicants respectfully traverse the rejection. Applicants propose amending claim 5 to be in independent form to include all of the features of claim 1. Applicants further propose amending claim 11 to be in independent form to include all of the features of claim 7.

Claim 5 is directed to a device for use in a network. The device includes, among other things, a processor to decode and display on a display device speech information as text in a form of words upon receipt of speech information from the network, wherein the

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processor includes a detector that responds to subscriber inputs to activate and deactivate speech recognition.

On page 15 of the Office Action, the Examiner admitted that Montgomery does not disclose or suggest that "said processor includes a detector that responds to subscriber inputs to activate and deactivate speech recognition." Although the Examiner did not explicitly state that Iwamida also fails to satisfy this deficiency, the Examiner relied on Engelke, at col. 4, lines 57-61, and Fig. 1, item 40, to disclose this feature. Applicants disagree with the Examiner and further confirm, upon close inspection of Iwamida, that Iwamida also fails to satisfy the deficiencies of Montgomery.

Engelke at col. 4, lines 57-61, with reference to Fig. 1, discloses:

Separately, a bypass circuit, designated at 40, and controlled by an on/off switch 41, is connected between the input and output telephone jacks 12 and 14 directly and which, when actuated, is capable of bypassing the entire internal components of the device of FIG. 1.

Thus, Engelke discloses a bypass circuit that may be activated by use of an on/off switch to cause all of the internal components of the device of Fig. 1 to be bypassed.

Engelke, at col. 4, line 62 through col. 5, line 42, explains operation of the embodiment of Fig. 1. Engelke, at col. 4, line 62 through col. 5, line 42, discloses:

The operation of the device will be described briefly here, and then in more detail below. The purpose of the TET device, when enabled, is to intercept the outgoing call placed by the user, as detected by the DTMF decode circuit. The microcontroller 30, during the dial by the user, intercepts the dialed tones and does not present them on the output line by opening the switch 35. When the user has finished dialing the number, the microcontroller 30 utilizes its analog capabilities, accessed through the D to A converter 32, to present on the output line the DTMF signal for a telephone number, but not the telephone number dialed by the user. Instead, the microcontroller 30 dials the number of the TET relay which the user normally utilizes. As the TET device makes initial contact with the relay, the TET device passes to the relay a series of machine command codes. The operation of such command codes will be described below. The function of the command codes at this point is to inform the relay as to the type of call to be implemented, and then to pass to the relay the number for the ultimate hearing person to be connected. The relay equipment will then automatically dial the number of the hearing user and configure a TET relay with a call assistant in the loop between the TET device, operated by the TET user, and the hearing user at the other end of the

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line.

When the set-up is completed, the hearing user speaks and the call assistant types the words spoken by the hearing user into the TDD at the relay. The telephone line between the TET and the relay will carry both the spoken words of the hearing user and the digital signals for the text typed into the device used by the relay call assistant. In the TET device of FIG. 1, the purpose of the notch filter 22 is to keep the text communication tones from being heard by the TET user. At the same time, the purpose of the notch filter 20 is to prevent the words spoken by the TET user from inadvertently interfering with the transmission and receipt of the digital communication tones. While the communication session is on-going, the TDD tones are passed through the band pass filter 26 and detected and decoded by the microcontroller 30. The microcontroller 30 decodes the digital text, and then presents a text character stream of the words spoken by the remote party on the visual display 38 so it can be read by the user. Thus the user, without having to take specific action, has created a call in which he or she may speak normally to the person at the other end of the line, and the person at the other end of the line may also speak normally. The hard of hearing or deaf user does not hear any of the digital communication tones for the text, but sees at his or her TET device a visual text character stream of the words spoken by the user at the other end of the line, in a real time fashion.

Thus, the embodiment of Fig. 1 is a text enhanced telephone (TET). The TET intercepts an outgoing call placed by a user, a microcontroller intercepts the dialed DTMF tones, and when the user has finished dialing the phone number, the microcontroller dials the number of a TET relay. The relay then dials the number of a hearing user and configures a call assistant (a human operator) in the loop between the TET device, operated by the TET user, and the hearing user at the other end of the line.

Once the call is set-up, when the hearing user speaks, the call assistant hears what the hearing user says and types the words into a Telecommunication Device for the Deaf (TDD) relay. The microcontroller receives and decodes the digital text and presents a text character stream of words on a visual display of the TET user.

Applicants submit that Engelke fails to disclose that the TET performs speech recognition. Instead, Engelke discloses that a human operator is included in the communications between the TET user and a hearing user. It is the human operator that performs speech recognition in the embodiment of Fig. 1 of Engelke.

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The TET device of Fig. 1 does not perform speech recognition, but instead receives and processes TDD tones entered by the human operator and displays text represented by the TDD tones. Thus, the bypass switch of Fig. 1 activates and deactivates the internal components of the TET device, which processes the TDD tones and displays the text corresponding to the TDD tones.

Applicants note that Engelke appears to consider the use of speech recognition technology at some point in the future. Specifically, Engelke, at col. 14, lines 37-50 discloses:

It is specifically contemplated herein that technological developments over time will enable the function of the call assistant to be, at some point in the future, an automated function. Once computer assisted voice recognition systems become practical such that they do not require training with a particular voice, the call assistant in any of the relay configurations described above could be replaced by an automated computer. The computer would be programmed simply to translate into text the words spoken by the user and to pass the text to the TET user in a fashion similar to that described above. The only difference in circuitry would be that the human being representing the call assistant, and that person's telephone and TDD, would be replaced by an automated voice recognition digital electronic system.

Thus, Engelke suggests that the human operator may, at some future time, be replaced by a computer programmed to convert spoken speech into text and pass the text to the TET for display to the TET user.

Applicants note that Engelke only discloses the embodiment of Fig. 1 as having the bypass switch. Applicants submit that if the embodiment of Fig. 1 is modified such that the human operator is replaced by a computer programmed to perform speech to text conversion, that the TET would connect to the computer via a phone line and the computer would initiate a call to the desired hearing party. After the connection is established, when the hearing party speaks, the computer would convert the speech into text and send the text via the phone line to the TET, which will display the text to the TET user. When the TET user chooses to turn the TET device off, causing the bypass switch to activate, then the TET device simply stops processing and displaying text. Applicants submit that if the bypass switch is activated

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during a phone call, the user at the end of the line having the TET device would receive the telephone signal having the text inserted, although the text would not be displayed by the deactivated TET device. If the telephone line carries both text and voice, the user would be able to hear the voice, but would not be able to see the corresponding displayed text.

For the reasons mentioned above, Applicants submit that if the invention of Montgomery in view of Iwamida were modified by the teachings of Engelke, the result would be a device that has a bypass switch that enables and disables the processing and display of text. Speech recognition, especially for an ongoing call, would remain unaffected by the bypass switch.

For at least the reasons discussed above, Applicants submit that claim 5 and dependent claim 6 are patentable over Montgomery in view of Iwamida and Engelke and respectfully request that the rejection of claims 5 and 6 be withdrawn.

Claim 11 recites a feature similar to that of claim 5 and is patentable over Montgomery in view of Iwamida and Engelke for reasons similar to those discussed with respect to claim 5. Therefore, Applicants respectfully request that the rejection of claim 11 be withdrawn.

#### **Rejection of Claims 2, 8 and 18**

On page 6 of the Office Action, the Examiner rejected claims 2, 8 and 18 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Iwamida and further in view of U.S. Patent No. 6,107,935 to Comerford et al. ("Comerford"). Applicants propose canceling claim 18 without prejudice or disclaimer thereby making the rejection of claim 18 moot. Applicants submit that proposed amended claims 2 and 8 are patentable, at least in view of their dependence from claims 5 and 11, respectively.

Claim 2 depends from claim 5 and is thus patentable over Montgomery and Iwamida for at least the reasons discussed with respect to claim 5. Comerford fails to satisfy the

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deficiencies of Montgomery and Iwamida. Therefore, Applicants submit that proposed amended claim 2 is patentable over Montgomery, Iwamida and Comerford and respectfully request that the rejection of claim 2 be withdrawn.

Claim 8 depends from claim 11, which has features similar to those of claim 5. Therefore, Applicants submit that claim 8 is patentable over Montgomery, Iwamida and Comerford for reasons similar to those discussed with respect to claim 2, above. Applicants respectfully request that the rejection of claim 8 be withdrawn.

#### **Rejection of Claim 13**

On page 8 of the Final Office Action, the Examiner rejected claim 13 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Comerford. Applicants propose canceling claim 13 without prejudice or disclaimer, thereby making the rejection moot.

#### **Rejection Of Claims 4 and 19**

On page 10 of the Final Office Action, the Examiner rejected claims 4 and 19 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Iwamida and further in view of Comerford and Published U.S. Patent Application 2002/0161579 to Saindon et al. ("Saindon"). Applicants propose canceling claim 19 without prejudice or disclaimer thereby making the rejection of claim 19 moot. Applicants submit that proposed amended claim 4 obviates the rejection.

Proposed amended claim 4 depends from proposed amended claim 5, as does proposed claim 2. Applicants submit that proposed amended claim 4 is patentable over Montgomery, Iwamida and Comerford for at least the reasons presented with respect to claim 2. Saindon fails to satisfy the deficiencies of Montgomery, Iwamida and Comerford. Therefore, Applicants submit that proposed claim 4 is patentable over Montgomery.

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Iwamida, Comerford, and Saindon and respectfully requests that the rejection of claim 4 be withdrawn.

**Rejection of Claim 15**

On page 12 of the Final Office Action, the Examiner rejected claim 15 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Comerford and further in view of U.S. Patent No. 6,175,820 to Dietz. Applicants propose canceling claim 15 without prejudice or disclaimer thereby making the rejection of claim 15 moot.

**Rejection of Claim 16**

On page 13 of the Final Office Action, the Examiner rejected claim 16 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Comerford and Iwamida and further in view of Dietz. Applicants propose canceling claim 16 without prejudice or disclaimer thereby making the rejection of claim 16 moot.

**Rejection of Claims 20 and 21**

On page 17 of the Final Office Action, the Examiner rejected claim 20 and 21 under 35 U.S.C. 103(a) as allegedly being unpatentable over Montgomery in view of Iwamida and further in view Dietz. Applicants propose canceling claims 20 and 21 without prejudice or disclaimer thereby making the rejection of claims 20 and 21 moot.

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**CONCLUSION**

Having addressed all rejections, Applicants respectfully submit that the proposed amendment would place the subject application in condition for allowance. Therefore, Applicants respectfully request entry of the proposed amendment and allowance of the remaining claims. A Notice to that effect is earnestly solicited.

Respectfully submitted,

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